

Wavin UK (Holdings) Ltd

Parsonage Way
Chippenham
Wiltshire SN15 5PN
Tel: 01249 654121 Fax: 01249 443286
e-mail: info@wavin.co.uk
website: www.wavin.co.uk

Agrément Certificate
87/1835
Product Sheet 3

OSMADRAIN UNDERGROUND DRAINAGE SYSTEM

OSMADRAIN YARD GULLY

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to the Osmadrain Yard Gully, for use as a trapped gully for connection to 110 mm PVC-U underground drain pipes and fittings to BS EN 1401-1 : 2009 and BS 4660 : 2000. The gully is for use in situations where Class B125 covers to BS EN 124 : 1994 would be suitable. This Certificate does not cover the use of the gully for domestic sewage, combined sewerage systems or untreated trade effluents.

AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

KEY FACTORS ASSESSED

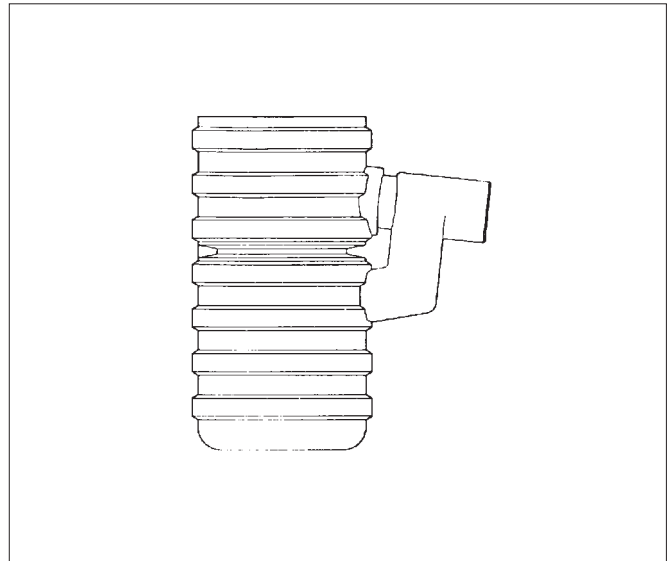
Flow characteristics — the gully has adequate flow characteristics (see section 5).

Mechanical properties — the gully has adequate strength to resist loads associated with installation and with subsequent use (see section 6).

Watertightness — the connection between the gully and drainage systems will be watertight provided suitable connectors are used and connections made in accordance with this Certificate (see section 7).

Resistance to chemicals — the gully will be unaffected by chemicals likely to be found in surface water (see section 9).

Durability — the gully will have a life in excess of 50 years (see section 11).



The BBA has awarded this Agrément Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 5 October 2010

Originally certificated on 7 March 1995



Brian Chamberlain

Head of Approvals — Engineering



Greg Cooper

Chief Executive

The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

British Board of Agrément
Bucknalls Lane
Garston, Watford
Herts WD25 9BA

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tel: 01923 665300
fax: 01923 665301
e-mail: mail@bba.star.co.uk
website: www.bbacerts.co.uk

Regulations

In the opinion of the BBA, the OsmaDrain Yard Gully, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



The Building Regulations 2010 (England and Wales)

| | | |
|--------------|--------------|--|
| Requirement: | H3(3) | Rainwater drainage |
| Comment: | | The product will convey the flow of rainwater and minimise the risk of blockages or leaks. See sections 3.1, 5, 6, 7, 8 and 9 of this Certificate. |
| Requirement: | Regulation 7 | Materials and workmanship |
| Comment: | | The product is acceptable. See section 11 and the <i>Installation</i> part of this Certificate. |



The Building (Scotland) Regulations 2004 (as amended)

| | | |
|-------------|---------|---|
| Regulation: | 8(1)(2) | Fitness and durability of materials and workmanship |
| Comment: | | The use of the product satisfies the requirements of this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate. |
| Regulation: | 9 | Building standards – construction |
| Standard: | 3.6(a) | Surface water drainage |
| Comment: | | The product will meet the relevant requirements of this Standard, with reference to clauses 3.6.1 ⁽¹⁾⁽²⁾ , 3.6.2 ⁽¹⁾⁽²⁾ and 3.6.3 ⁽¹⁾⁽²⁾ . See sections 3.1, 5, 6, 7, 8 and 9 of this Certificate. (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic). |



The Building Regulations (Northern Ireland) 2000 (as amended)

| | | |
|-------------|----------|--|
| Regulation: | B2 | Fitness of materials and workmanship |
| Comment: | | The product is acceptable. See section 11 and the <i>Installation</i> part of this Certificate. |
| Regulation: | B3(2) | Suitability of certain materials |
| Comment: | | The product is acceptable. See section 10 of this Certificate. |
| Regulation: | N5(a)(b) | Rain-water drainage |
| Comment: | | The product will convey the flow of rainwater and minimise the risk of blockages or leaks. See sections 3.1, 5, 6, 7, 8 and 9 of this Certificate. |

Construction (Design and Management) Regulations 2007

Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 12 Procedure of this Certificate.

Non-regulatory Information

NHBC Standards 2010

NHBC accepts the use of the OsmaDrain Yard Gully, when installed and used in accordance with this Certificate, in relation to *NHBC Standards, Part 5 Substructure and ground floors, Chapter 5.3 Drainage below ground.*

General

This Certificate relates to the OsmaDrain Yard Gully, for use as a trapped gully for connection to 110 mm PVC-U underground drain pipes and fittings to BS EN 1401-1 : 2009 and BS 4660 : 2000.

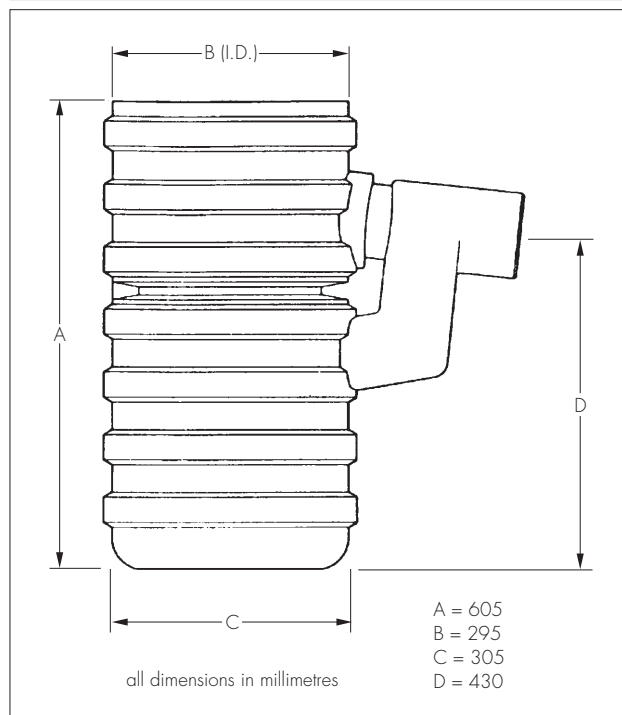
The gully is for use in situations where Class B125 covers to BS EN 124 : 1994 would be suitable.

This Certificate does not cover the use of the gully for domestic sewage, combined sewerage systems or untreated trade effluents.

1 Description

1.1 The OsmaDrain Yard Gully comprises a blowmoulded, high density polyethylene (HDPE) gully with an internal diameter of 295 mm and depth of 605 mm (see Figure 1).

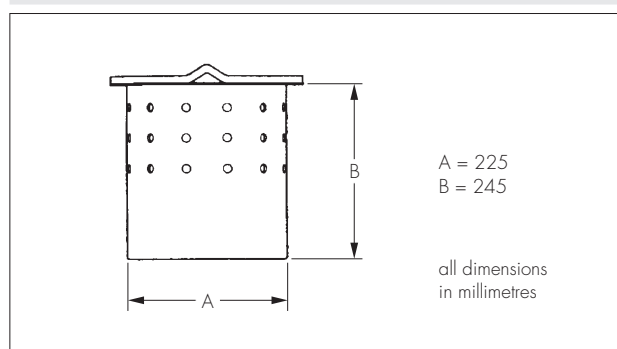
Figure 1 Gully details



1.2 The trapped gully incorporates an integral trap, outlet spigot and a Thermoplastic Elastomer (TPE) plug and retaining strap to BS EN 681-2 : 2000. If the access plug is not used, the gully is considered to be untrapped.

1.3 A perforated galvanized mild steel catchment bucket is available for use with the gully (see Figure 2).

Figure 2 Catchment bucket



1.4 A ductile iron grating and frame (4D 810), kitemarked for use as a Class B125 cover to BS EN 124 : 1994, is available for use with the gully (grating dimensions 303 mm by 325 mm).

1.5 Joints to PVC-U pipe to BS EN 1401-1 : 2009 can be made directly from the outlet using standard BS EN 1401-1 : 2009 and BS 4660 : 2000 connectors.

1.6 Quality control includes visual examinations on each moulding and checks on dimensions and weight.

2 Delivery and site handling

The OsmaDrain Yard Gully is delivered to site without packaging and is identified by direct engraving on the product with the manufacturer's product code (4D800) and the number of this Certificate.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the OsmaDrain Yard Gully.

Design Considerations

3 General



3.1 The gully is for use with pipes and fittings complying with BS EN 1401-1 : 2009 and BS 4660 : 2000 in surface water drainage systems designed in accordance with BS EN 12056-3 : 2000 and BS EN 752 : 2008, for the conveyance of surface water.

3.2 This Certificate does not cover the use of the gully for domestic sewage, combined sewerage systems or untreated trade effluents.

4 Practicability of installation

The product is designed to be installed by a competent contractor, experienced with this type of product.

5 Flow characteristics



The gully has a nominal holding capacity of 26 litres.

6 Mechanical properties



The product has adequate strength to resist loads associated with installation and with subsequent use in the situations defined in the *General* part of this Certificate.

7 Watertightness



The connection between the gully, and pipes and fittings to BS EN 1401-1 : 2009 and BS 4660 : 2000, is watertight.

8 Rodding



The drain may be rodded from the gully, using flexible drain rods, by removing the access plug.

9 Resistance to chemicals



The gully will be unaffected by those types and quantities of chemicals likely to be found in surface water.

10 Maintenance



To maintain the effectiveness of the gully trap the access plug must be replaced after rodding.

11 Durability



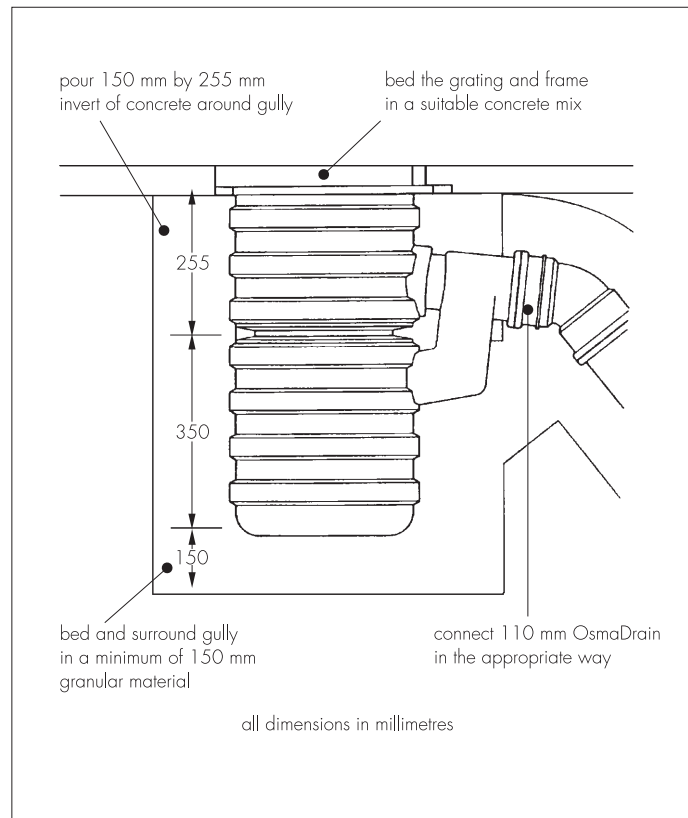
In the opinion of the BBA, when used in accordance with this Certificate, the materials from which the components are manufactured will not significantly deteriorate, and the system will have a life in excess of 50 years.

Installation

12 Procedure

12.1 The gully should be installed in a suitably sized excavation allowing an additional 150 mm under and around the gully (see Figure 3).

Figure 3 Typical installation details



12.2 A bed of 150 mm granular material is laid at the bottom of the excavation.

12.3 The gully is set level and in line with the branched drain.

12.4 The gully is connected to the branch drain and surrounded by granular material to a maximum depth of 350 mm.

12.5 The rest of the excavation is filled with concrete and the grating and frame bedded in a suitable concrete mix.

Technical Investigations

13 Tests

Tests were carried out to determine:

- dimensional accuracy
- density of HDPE to ISO 1183 : 1987, Method A
- Vicat softening temperature to ISO 306 : 1987, Method A
- ash content to ISO 1270 : 1975 : Method A
- tensile strength and elongation to ISO/R 527-1 : 1966
- melt flow rate of BS 2782-7 : Method 720A : 1979
- watertightness of gully and connection
- capacity
- resistance to external hydrostatic pressure
- resistance to wheel loads.

14 Other investigations

14.1 An evaluation of existing data was made to assess resistance to chemicals and durability.

14.2 The manufacturing process was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

- BS 2782-7.720A : 1997 *Methods of Testing Plastics - Rheological Properties - Determination of Reduced Viscosity (Viscosity Number) and Intrinsic Viscosity of Plastics in Dilute Solution*
- BS 4660 : 2000 *Thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage*
- BS EN 124 : 1994 *Gully tops and manhole tops for vehicular and pedestrian areas. Design requirements, type testing, marking, quality control*
- BS EN 681-2 : 2000 *Elastomeric seals - Materials requirements for pipe joint seals used in water and drainage applications - Thermoplastic elastomers*
- BS EN 752 : 2008 *Drain and sewer systems outside buildings*
- BS EN 1401-1 : 2009 *Plastics piping systems for non-pressure underground drainage and sewerage. Unplasticized poly(vinylchloride) (PVC-U) — Specifications for pipes, fittings and the system*
- BS EN 12056-3 : 2000 *Gravity Drainage Systems inside Buildings — Roof drainage, layout and calculation*
- ISO/R 527 : 1966 *Plastics — Determination of tensile properties*
- ISO 306 : 2004 *Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST)*
- ISO 1183 : 1987 *Plastics — Methods for determining the density and relative density of non-cellular plastics*
- ISO 1270 : 1975 *Plastics — PVC resins — Determination of ash and sulphated ash*

15 Conditions

15.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- is valid only within the UK
- has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English law.

15.2 Publications and documents referred to in this Certificate are those that the BBA deems to be relevant at the date of issue or re-issue of this Certificate and include any: Act of Parliament; Statutory Instrument; Directive; Regulation; British, European or International Standard; Code of Practice; manufacturers' instructions; or any other publication or document similar or related to the aforementioned.

15.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

15.4 In granting this Certificate, the BBA is not responsible for:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

15.5 Any information relating to the manufacture, supply, installation, use and maintenance of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used and maintained. It does not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the manufacture, supply, installation, use and maintenance of this product/system.

